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TWENTY-FIVE CASES OF VESICO-VAGINAL FISTULA, OF WHICH TWENTY-TWO WERE CURED BY OPERATION.

BY R. M. HODGES, M.D., Boston.

IN the number of this JOURNAL for August 11, 1864, six cases of Vesico-Vaginal Fistula were published, in five of which an operation was followed by a complete cure; the sixth case, a fistula originally of very large dimensions, was believed to have remained uncured only because the subject of it declined to undergo a third operation. At the time of leaving the Massachusetts General Hospital, in which she was a patient, she had been improved sufficiently to retain her urine for half an hour.

The topic is again brought forward because it is still supposed by many physicians that this disability is one rarely alleviated, while the truth is that no surgical affection, of equal gravity, admits of more certain cure. The idea that urine possesses antiplastic properties which render healing by first intention impracticable in a wound of parts bathed by that secretion, is not warranted; modern experience has shown the incorrectness of such a theory. If the permanent closure of vesico-vaginal fistulæ is considered a difficult procedure it is only because, in the interior of the vagina, incisions cannot always be made with the precision, or sutures introduced with the accuracy, which a successful performance of the operation renders necessary.

The operation, moreover, is not frequently practised outside of hospitals. It is unattractive in itself, being tedious and time-consuming, and, pecuniarily, an unprofitable one to the surgeon. The accident requiring it seldom occurs except in cases where the influences of poverty prevail, and the attendance in labor is unskilled, or where ignorance and prejudice prohibit instrumental delivery. The subjects of this injury are, therefore, almost exclusively those who, if they desire relief, are unable to pay for surgical attendance, or to command at their own homes the requisite care and nursing, but must seek them in charitable asylums.

To give publicity to the results obtained in a single Institution—the more especially, as that Institution and the name of one of its former surgeons are identified with the early triumphs of this essentially American operation—and to correct the erroneous impression which has been mentioned, are the motives with which this second series of cases is reported. The record will encourage the belief that vesico-vaginal fistulæ are frequently and oftentimes readily cured. The means and adroitness demanded for the accomplishment of this end are possessed by every practical surgeon. Very simple appliances suffice, and although these admit of considerable refinement, long instruments, delicate enough not to obstruct the view and to cast but little shadow, and common flexible spatulæ, by which a clear view of the opening in the bladder is always attainable, if at all, are, so far as mechanical expedients are concerned, almost the only conditions of success.

The method of operating described in the article already alluded to was essentially followed in the cases to be detailed. The cardinal rules—thoroughly to loosen the flaps—not to molest the mucous coat of the bladder—not to fear the insertion of too many sutures, were carefully observed. The extraction of the stitches, at the end of not less than ten days, was nearly always performed with the patient in an etherized condition. Frequent bathing, daily syringing of the vagina, and a dry bed, were considered important points in treatment. The *Pousse Fil Métallique* of Robert and Colin was occasionally used. Deep sutures, entering and emerging at long distances from the edges of thick flaps, so essential to success, are, perhaps, more easily introduced by means of this ingenious instrument than by a simple needle and holder, but an objection to it is that the propelling wheel dents the soft silver wire to such an extent that it is apt to break in being twisted, or

bent at a sharp angle. The abundant and annoying hæmorrhage, which is by no means uncommon, can always be controlled by deep stitches, and although bloody urine may be passed for a few days, in none of the cases reported were ligatures necessary, or was there a loss of blood sufficient to produce any impression on the general circulation. Backache, and the fatigue of a confinement to one position, were the principal sources of suffering, and opiates were given only with a view to prevent a movement of the bowels, which were always kept constipated during the ten days succeeding the operation.

In every instance, a catheter was kept in the bladder until after the sutures were removed. Either Sims's self-retaining silver catheter, with a short piece of rubber tubing attached, or a gum-elastic catheter, leading into a urinal between the thighs, were found more comfortable than a long tube conducting the urine to a vessel outside the bed. Of late this use of a catheter has been considered unnecessary by some, but it was not dispensed with in any of the cases treated.

The brief reports which follow are not of selected cases, but include every instance of fistula (with the exception of one still under treatment) which has come under the writer's care. In some of them the opening was by no means large, but, in all four cases, however, the incontinence was total, no urine passing by the urethra. It is to be remembered that paring and loosening the flaps enlarge a fistulous orifice, and that the number of sutures used indicates the size of the aperture closed better than a statement of its measurements. With two exceptions, the operations were performed at the Massachusetts General Hospital.

VII.—E. M., American, æt. 29. A fistula, half an inch in diameter, and one inch and a half from the meatus of the bladder, attended by complete incontinence of urine, followed her first confinement, eight years ago, when she was delivered of a large, still-born child, by instruments, after a labor of two days duration. Two years later, she gave birth to a living child after an easy labor. May 18th, the edges of the fistula were pared and brought together by nine silver sutures. May 27th, the sutures were removed. May 29th, the catheter was dispensed with. May 31st, the patient was allowed to sit up. June 4th, discharged, cured.

VIII.—A. B., German, æt. 27. Has had five labors, all instrumental, and, except the last, of over twenty-four hours' duration. None of her children have lived more than twenty-four hours. The duration of her last labor, which occurred ten weeks before her admission to the Massachusetts General Hospital, was thirty-six hours. The weight of her child, which was still-born, is not known. A fistula followed this confinement. Although not large, it caused complete incontinence of urine. It was very inaccessible, and lay at the bottom of a cicatricial depression high up the vagina, in an extreme lateral position. It was operated on May 27th, and required six sutures. June 8th, sutures removed. June 10th, catheter dispensed with. June 15th, discharged, cured.

IX.—M. J., American, æt. 30. Three years before entering the hospital, after a labor lasting from Tuesday until Friday, was delivered by forceps of a child weighing nine pounds. May 16th, the fistula which followed this confinement was operated on. The opening was of irregular, triangular shape, one inch in diameter, and on the right side coming hard up to the ramus of the ischium. It required twelve sutures for its closure. May 23d, six sutures removed. May 26th, the remaining sutures were removed. May 29th, leaking returned. June 6th, examined, and urine found to escape from two small orifices, each about as large as a probe's head.

A second operation was performed June 27th, and the openings closed, one with five, and the other with four sutures. July 6th, all the sutures were removed. July 9th, catheter dispensed with. July 10th, sitting up and walking about. July 12th, discharged, cured.

X.—M. McA., born in Ireland, æt. 27. Previous to her admission to the Massachusetts General Hospital, this patient had been operated on several times for the cure of a fistula following her first labor, which lasted from Sunday until Tuesday, and was terminated by the forceps. The weight of her child, which was still-born, is not known. On examination two fistulous openings were found, about an inch apart and occupying lateral positions, one admitting the end of the finger, the other a female catheter. Total incontinence of urine existed. April 22d, these openings were closed with ten sutures, the two separate wounds uniting in the median line so as to give the appearance of a continuous linear cutting. April 27th, the patient, not having known herself to be pregnant, gave birth to a three months fœtus. April 29th, four sutures

removed. May 3d, the remaining sutures were removed. May 5th, catheter dispensed with. May 8th, sitting up. May 10th, discharged, cured.

XI.—L. C., born in Ireland, æt. 29. After her third labor, forty-eight hours in duration, this patient was delivered by instruments of a still-born child. A fistula, more than an inch in diameter, and total incontinence of urine ensued. The posterior border of the opening is the anterior lip of the os uteri, which is deeply notched; the anterior border is much inverted and adherent to the fundus of the bladder. Oct. 11th, the opening was closed with ten sutures. Oct. 21st, sutures removed. Oct. 23d, catheter dispensed with. Oct. 27th, discharged, cured.

XII.—Two years after the operation recorded in the preceding case, the subject of it reëntered the Massachusetts General Hospital. She states that at the time of that operation she was two months advanced in pregnancy, and that she was delivered at the seventh month of a living child, without any untoward occurrence. In two months, she again became pregnant, and continued until the full term. Her labor began on Friday, and she was delivered by instruments on Sunday. Immediately afterwards she noticed that the urine escaped involuntarily. July 24th, a fistula, one inch in diameter, occupying a position corresponding in part to the cicatrix of the former operation, was closed with nine sutures. Aug. 3d, the sutures were removed, and the catheter dispensed with. Aug. 7th, discharged, cured.

XIII.—Again, after two years, this patient presented herself at the hospital with a fistula. Eight months before her present admission, she had given birth to a still-born child at full time, without any mechanical interference. Her recovery was rapid, and on the ninth day she was up and about house. On the evening of that day she had a severe pain in the pelvis, and on its subsidence found that her urine leaked from her without control. On examination, a fistula of small size was found far back towards the os uteri. May 6th, the edges of this opening were refreshed and brought together with six silver sutures. May 15th, not the slightest leaking having occurred, the sutures were removed. The removal of them was undertaken without the patient being etherized. Their inaccessibility and the somewhat insufficient dilatation of the vagina led to the tearing open of the wound and the reëstablishment of the fistula. May 17th, the fistula was again closed with eleven sutures. These were removed May 27th. The catheter was omitted May 28th, and on May 30th the patient was discharged, cured. There was reason to think that this patient aborted during recovery from the operation. The occurrence of an otherwise unexplainable flowing, its duration and the odor of the discharge, together with the pain, and the fact that her catamenia had been suppressed for two months, left but little doubt that such an event came to pass.

XIV.—M. S., American, æt. 41. This patient had been operated on, fourteen years before, for a vesical calculus, weighing two and three fourths ounces, by Dr. W. G. Wheeler, of Chelsea. (See *Amer. Jour. of the Med. Sciences*, April, 1853.) The stone, which had a hair-pin for nucleus, was removed by an incision through the vesico-vaginal parietes. No attempt was made to close the opening. The fistula which ensued was about three fourths of an inch in diameter and was readily closed, as there had been no loss of tissue, by six sutures. The operation was performed Nov. 1st, and on Nov. 11th the catheter was dispensed with. Nov. 12th, the sutures were removed. Nov. 15th, discharged, cured.

XV.—C. B., born in Ireland, æt. 35. Has had three confinements. At her first, the labor was difficult; at the second, normal. The third labor was of forty-eight hours' duration, and terminated in the delivery of a putrid fœtus. An enormous fistula followed, extending from side to side of the vagina, gaping more than an inch antero-posteriorly. Through it the mucous surface of the anterior wall of the bladder largely protruded. The anterior portion of the remaining vesico-vaginal parietes had become inverted and adherent in such a way as to occlude the urethra. With some difficulty the edges of the fistula were brought together and retained in apposition by six silver sutures. This procedure was expected to prepare the fistula for a second operation rather than to effect its cure. The result was to reduce it to an opening capable of admitting nothing of larger size than a female catheter.

A month later, Sept. 4th, the edges of the remaining aperture, which was close up to the ramus of the ischium, and very unyielding, were carefully refreshed and the opening closed by a flap of mucous membrane freely dissected up from the right side of the vagina; this was held in place by eight sutures. Sept. 9th, slight leaking. Sept. 18th, sutures removed.

Although after this second operation the

patient could sit up for several consecutive hours without any involuntary escape of urine, a small opening, large enough to admit a fine probe, still remained. This was easily closed, Oct. 3d, with four sutures. Oct. 16th, sutures removed. Oct. 20th, discharged, cured.

XVI.—J. W., born in Ireland, æt. 26. Three months before admission to the hospital this patient was delivered of a dead child, by instruments, after a labor of sixty-six hours. No leakage of urine was noticed until three weeks after delivery; finally, she had little or no control over its escape. June 19th, a fistula, half an inch in diameter and lateral in position, was closed by twelve silver sutures. June 28th, having had a catamenial period since the operation, the sutures were removed. July 3d, the catheter was dispensed with. July 10th, discharged, cured.

XVII.—M. M., American, æt. 22. Four months before admission to the Massachusetts General Hospital was confined with her first child, after a labor of fifty-six hours' duration. Instruments were not used. The child was stillborn. No leakage of urine occurred until seventeen days after delivery; since then she has been unable to control its escape. July 8th, a fistula, one third of an inch in diameter, situated in the median line, far back towards the os uteri, was closed by twelve sutures, the opening having torn to twice its original size during an attack of vomiting which occurred while the operation was in progress. July 15th, sutures removed. July 22d, catheter dispensed with. July 23d, discharged, cured.

XVIII.—B. McM., born in Ireland, æt. 34. Has had five children. Her first three labors were natural. The fourth labor, which lasted twenty-four hours, was terminated by instruments, the child being dead. Her fifth labor occurred three months before being admitted to the hospital; it lasted twenty-four hours, and the child was born alive, but soon died. Total incontinence of urine followed. The fistula extended posteriorly to the os uteri, and to the ramus of the ischium on each side. The portion of the vesico-vaginal septum remaining anteriorly was inverted and adherent to the opposite surface of the bladder; but when unrolled, the adhesions being ruptured by the finger, it constituted a flap of perhaps an inch in depth. Between this and the os uteri there was nothing but the protruding vesical mucous membrane. Oct. 4th, the opening was brought together by fifteen silver sutures. Oct 8th, some leaking, Oct. 16th, sutures removed. Oct. 25th, the leaking continued, but a tolerable stream of urine could be passed per urethram.

The remaining fistulous opening, which only admitted the passage of a large probe, was closed, Nov. 12th, by seven sutures. Nov. 20th, sutures removed. Nov. 25th, no fistula could be discovered by the probe, or the injection of water into the bladder, or by inspection with favorable light and dilatation. The patient stated, however, that there was an involuntary escape of urine. A fistula, barely admitting the smallest probe, was subsequently detected just behind the meatus urinarius.

The edges of this minute opening were refreshed, Feb. 8th, and to make its closure more certain the tissues were dissected up to such a degree that eight sutures were introduced. Feb. 14th, the sutures were removed. Feb. 22d, the leaking reappeared. Feb. 25th, the patient was discharged to return, but she has never made her appearance, nor can her present residence or condition be ascertained.

XIX.—H. C., American, æt. 44. Has had three children. Her first labor was tedious and painful, terminating, after forty-eight hours, in the birth of a dead child, extracted by the crotchet. A fistula followed this labor. Two subsequent confinements were normal and easy. At the time of her admission to the Massachusetts General Hospital, she had a slight control over her urine. The fistula was one-third of an inch in diameter, and situated midway between the neck of the bladder and the os uteri. Oct. 18th, this was closed with nine sutures. A catamenial period occurred between the time of the operation and Oct. 28th, when the sutures were removed. Oct. 30th, catheter dispensed with. Nov. 2d, discharged, cured.

XX.—M. McA., born in Ireland, æt. 31. Twenty months before admission, after sixty hours of labor, was delivered of a dead child, by instruments. A small fistula close to the os uteri ensued. June 14th, closed with six silver sutures. June 25th, sutures removed. June 27th, catheter dispensed with. June 29th, discharged, cured.

XXI.—M. McI., born in Ireland, æt. 30. Has had seven children. All her labors were natural until the last, three months before entering the hospital, when the child was delivered, dead, after version and instrumental extraction, her labor having been of 12 hours' duration. Total incontinence of urine followed. An irregular longitudinal fistula extended from the neck of the bladder into the os uteri, the anterior lip of

which was split. June 30th, the edges of the opening were refreshed and brought together with fifteen silver sutures, the os uteri being turned into the bladder. July 14th, sutures removed. Union complete, except a small orifice at the extreme right of cicatrix, where two sutures had ulcerated out.

The remaining fistula was again closed, Aug. 15th, with seven sutures. Aug. 25th, sutures removed. Aug. 31st, catheter dispensed with. Sept. 7th, discharged, cured.

In a letter from this patient's physician, Dr. W. J. Currier, of Lexington, written six months after her discharge, he stated that she "was in excellent health, and had menstruated for the last three months through the bladder. She had discovered this fact from the discoloration of her urine."

XXII.—M. B., born in Ireland, æt. 31. Has had three living children, all delivered without medical attendance. Her fourth labor commenced on Wednesday and terminated on Friday by the birth of a dead child, weighing eighteen pounds. No instruments were used. A large fistula ensued, involving a loss of almost the entire vesico-vaginal septum. Dec. 17th, this was closed by eleven silver sutures, the os uteri being turned into the bladder. Jan. 9th, sutures removed. Jan. 10th, catheter dispensed with. The remaining fistula was closed, Jan. 17th, by nine sutures. Feb. 6th, sutures removed. Feb. 7th, catheter dispensed with.

By a third operation, February 22d, the fistula, then about an inch in diameter, was again brought together, by eight sutures. March 1st, sutures removed. March 2d, catheter dispensed with. March 6th, discharged, cured. During recovery from this last operation a menstrual period occurred, and the discharge came away with the urine without any inconvenience to the patient.

XXIII.—E. C. H., born in Maine, æt. 27. Six months ago delivered by forceps of her first child, which was stillborn, after a labor of forty hours' duration. A fistula ensued at a point about corresponding to the neck of the bladder. June 2d, the orifice was closed with nine silver sutures. June 13th, sutures removed. June 14th, catheter dispensed with. June 16th, discharged, cured.

XXIV.—J. B., born in New Brunswick, æt. 29. Thirteen years ago was delivered at full term, by forceps, after a prolonged labor, of a child weighing sixteen pounds. Sloughing followed, and the entire vaginal wall of the bladder was destroyed. Total incontinence of urine followed and has continued ever since. Two premature confinements (at six and at three months) have taken place since the occurrence of the fistula. On examination, the fundus of the bladder was found prolapsed to such a degree as to form a tumor outside the vulva as large as a hen's egg. On its reduction, which was effected with extreme pain, the line between the bladder and the vagina, owing to the thickened and excoriated condition of the surfaces, could with difficulty be distinguished, except anteriorly and in the vicinity of the urethral portion. May 8th, this enormous opening was brought together and closed by twenty-two sutures. On the following day, the abdomen was tender and tympanitic. The urine, which could now be obtained for analysis, was alkaline (s. g. 1004), and contained a large amount of albumen, with a sediment of blood, triple phosphates, pus, shreds of tissue, and granular casts. May 11th, the patient was out of her head (the delirium seeming like that of delirium tremens), and frequently removed the catheter, getting out of bed, sitting on the chamber-pot whenever left for a moment, and pouring the contents of her urinal over the bed. She had a cough; there was dulness over the upper part of the left lung, with obscure crepitant râles and bronchial respiration. The appetite persisted; nutritious food was taken in considerable quantities, and she drank ale and wine with apparent relish. The delirium, however, increased; the pulse ran up to 160, and, on the 15th, the patient died.

At the autopsy, the lungs were found œdematous, and in all the lobes of both there were many cicatrices and deposits of cretaceous tubercular matter. Their condition was peculiar, and appeared to indicate two periods of the same disease, or two different diseases—a tuberculosis from which the patient had recovered, and a catarrhal pneumonia, or a general infiltration of tubercular matter beginning to soften. The kidneys were extensively diseased, the tubuli being crowded with granular matter and in many places containing phosphatic crystals. In the vagina, the line of wire sutures extended around two thirds of its circumference, and the union of the wound was imperfect. The upper wall of the bladder was in a more or less gangrenous condition and covered with earthy salts; there were many large and small holes opening into a cavity in front of the peritoneum. In fact, there was hardly anything of the superior

wall of the bladder remaining. Whether these apertures existed before the operation was uncertain, but it seemed probable that many of them did.

XXV.—M. K., born in Ireland, æt. 38. Has had nine children, all of them born living, with the exception of the ninth, which died at the time of delivery. Her labors have been natural and of short duration; forceps were used, however, at the last one, at the end of twelve hours. A fistula ensued, the urine beginning to escape about a week after her confinement. Six months later the opening was found to be one-third of an inch in diameter, occupying a central position in the vagina, about equi-distant from the urethra and the os uteri. Incontinence of urine was complete, except when lying down. June 9th, the fistula was closed by six sutures. June 18th, sutures removed. June 20th, catheter dispensed with. June 23d, discharged, cured.

A recapitulation of the entire series of twenty-five cases gives the following results: cured, 22; not cured, 2; died, 1. Fifteen cases were cured by a single operation; five by two, and two by three operations. Of the fifteen cases cured by a single operation, the duration of treatment ranged from ten to seventeen days. The smallest number of sutures used in any case was three, the largest twenty-two.

It will be seen that the occurrence of diarrhœa, of the menstrual period, in three cases, and of miscarriage, in two cases, did not interrupt the process of cure, and that in one instance the patient was pregnant and did not miscarry. In three instances where the os uteri was turned into the bladder, the catamenial flow, as it subsequently occurred, was readily voided with the urine, and without discomfort to the patient. One patient was three times the subject of the injury and was each time readily cured, twice by a single operation. In those cases where more than one operation was necessary, a period of four to six weeks was usually allowed to elapse before the second was performed. The long retention of a catheter in situ seems sometimes to lead to a temporary incontinence of urine, which escapes per urethram after the fistula has been closed. This has been noticed in two instances. In one the patient was returned to the hospital by her physician, under the impression that a cure had not been accomplished; but the condition disappeared without treatment, and both patients recovered completely from this transient inconvenience.

Neither of the two cases incompletely relieved seemed to present any intrinsic impossibility of being cured. After three operations a minute opening still remained in one; while in the other, after two operations, the closure was complete enough to enable the patient to retain her urine half an hour. This last patient could not be induced to reënter the hospital; the other was lost sight of altogether.

Until twenty-four patients had been operated on not a single death had followed the procedure. Such an occurrence must, from the nature of things, be infrequent. Indeed in no other case had any symptoms followed which could be called severe. In the instance reported as terminating fatally, the operation was performed for a fistula of thirteen years standing, and of the largest description, requiring twenty-two sutures for its closure. The patient's general condition was masked by this desperate local difficulty. As soon as the urine could be collected, it was analyzed and found to be highly albuminous, full of fatty casts, with a s. g. of 1004. What was supposed to be delirium tremens appeared on the third day, and the patient died at the end of a week from tuberculosis and pneumonia. There was also Bright's disease of the kidneys. Could this condition of things have been determined beforehand no operation would have been attempted, for the case was obviously unsuited to such an undertaking.

It will be observed that with the exception of Case XIV., where the fistula was caused by an operation for lithotomy, the accident followed a tedious labor of from twenty-four to forty-eight hours in all but three instances. In the first of these cases, the injury occurring for the third time, the cicatrix of a previous operation ruptured during an easy labor. In the second, it occurred after version and instrumental extraction of the head in a labor of twelve hours duration. In the third case, it followed a labor lasting twelve hours, and terminated by a difficult forceps extraction. In seventeen cases, instruments were used, but only, as has just been remarked, after a prolonged labor (save in two instances); and to this latter influence, rather than to the instruments, the occurrence of vesico-vaginal fistula must be almost universally ascribed; indeed, it constitutes an argument in favor of mechanical interference, which, fortunately, from the increasing extent it is nowadays resorted to, hardly requires be specially inculcated.

ON RETROVERSION OF THE WOMB. NOTES OF A CASE IN PRIVATE PRACTICE.

By E. P. Hurd, M.D., Newburyport.

The following case of retroversion of the womb came under my observation in October, 1867, while engaged in practice in Canada East.

Oct. 17th, evening, I was summoned to go eight miles into the country to see a woman who had been, since the morning of the preceding day—so the messenger said—"suffering from a distressing complaint." All at once, while about her house-work, she had felt something "give way," and had since then suffered severe pain in her back and loins, with inability to void urine. I found my patient (a middle-aged woman) in bed, groaning with pain, which was principally in the lower part of the abdomen, and referred to the region of the urinary bladder. She had not passed urine since the period of attack, though so urgent was the desire that much of the time was passed in ineffectual attempts to micturate. I ascertained the following facts. Mrs. T. was pregnant, four months. Had been very much constipated, and had suffered from leucorrhœa. The day previous, she had felt the present trouble come on while lifting a wash-tub. Believes that her womb "came down." On making an examination, I found the entire abdomen distended. There was fluctuation, and percussion gave a flat sound. This swelling quite disappeared, when, on introducing a male catheter (I had ineffectually tried the straight tube), I drew off a chamber-pot full of decomposing urine.

Between the labia, filling the vagina, was a large, hard, globular tumor. It was slightly movable, and could be pushed up a couple of inches. I could pass the finger around it, its whole length posteriorly and laterally, but could nowhere find the os uteri. Through the walls of the intra-vaginal tumor I could distinctly feel the outlines of a fœtus. I diagnosticated retroversion. The globular tumor was evidently the *bas fond* of the uterus.

I vainly endeavored to replace it. The tumor could be raised a couple of inches or more in the axis of the vagina, no more. The body seemed to be thoroughly impacted in the pelvis. With an enema I cleared out the rectum, and endeavored, the woman being on her left side and her knees drawn up very high, to replace the retroverted fundus by my two fingers in the rectum. Again I failed. The patient implored me to desist, and I returned to my home.

The next day I saw Mrs. T. in company with Dr. W. L. Page. The urine was drawn off with the curved catheter, and attempts were again made to return the uterine fundus, but in vain. The mystery seemed to be how it ever came down, it so filled the pelvic cavity, and the brim was so narrow. Dr. P., who was many years my senior, gave it as his opinion that nothing could be done but leave the patient to the "course of nature." He believed the progress of pregnancy would raise the organ above the pelvis, and all would be right.

The next day I was sent for early. Mrs. T. was said to be in a dying condition. I made all possible haste, and found my patient *in labor*. The fundus uteri, with every labor-throe, protruded some inches through the labial orifice. Pulse 130, but strong. No signs of collapse.

I caused the bladder and rectum to be emptied, gave chloroform to anæsthesia, then grasping the fundus, I pressed upward with all the force I dared to use. There was little difficulty, as the parts were completely relaxed. By steadily pushing toward the plane of the superior strait, I felt the uterus escape above the promontory, and the os tincæ came with a bound against my hand. The relief, both to myself and the patient, was indescribable. A dose of laudanum was given. The labor pains, for a while arrested, returned in the evening, and a miscarriage was the result. The fœtus was judged to be of about four months' growth. There was no farther trouble about voiding the urine. Mrs. T. completely recovered, after a somewhat lingering convalescence.

Selected Papers.

ANATOMY AND PATHOLOGY OF THE FALLOPIAN TUBES.

Translated from Der Katarrh der Inneren Weiblichen Geschlechtstheile, von Prof. Carl Hennig, Leipzig.
By J. C. Jay, Jr., M.D., and B. F. Dawson, M.D.

On Müller's filament, in the female fœtus, a tube is developed on both the right and left side, which individually connect with the upper and outer angles *(horns)* of the uterus, and the outer or free extremities of which eventuate in an opening surrounded with a fringe (*fimbriæ*). In the human fœtus these tubes are narrower at the portions nearest the horns of the uterus. Those exceptions in which the horns are large and

wide apart, correspond more nearly to the development in the lower animals.

In the adult woman the right fallopian tube is about 9½ centimetres long, and the left 8½ cm. The abdominal (or external) extremities of both are about 1·9 centimetre broad, and are surrounded with five large fringes about 1·2 cm. long, and ten smaller ones about 0·3 cm. long; the largest are on the extreme end. The fimbriæ farthest from the ends are so near the ovaries, that formerly they were supposed to be connected with those organs. The fact is, however, that even during childhood these fimbriæ are more than 8 millimetres from the ovaries, and never nearer than 3 millimetres, this distance being generally the same on both tubes, or if there be any difference, it is less on the left than on the right.

While the fallopian tube of each side rises from below and behind in a direction forward and upward, and so over the corresponding ovary, it usually follows the direction of the transverse diameter of the brim of the pelvis, in the first part of its course being a little nearer the posterior than the anterior wall, and then passes downward and backward to the body of the uterus, and so to its cavity. In this course, each tube from its fimbriated extremity to more than its middle, and often for two-thirds of its length, but most distinctly at its central portion, is slightly tortuous, and gradually lessens in size towards the uterus, so that the right tube, directly behind the fimbriæ, may measure 1·4, the left, 1·1 centimetres broad, and yet both at their point of entrance to the uterus may only measure 0·35 cm. in breadth. In their course through the uterine tissue, the tubes are homogeneous with the latter.

In the normal state the human oviduct is quite soft, and, from the fact of its lying in the free border of the broad ligament, is quite movable; near its insertion into the uterus, however, it becomes somewhat firmer, and its mobility at this portion is chiefly dependent upon the position of the uterus. Besides this passive mobility, it has also, as a hollow muscular organ, a peculiar though slight contractile power.

Its external appearance is of a pale gray color, with a slight rosy hue, its middle portion being slightly yellowish.

The wall of either fallopian tube measures at the free extremity from 0·33 to 0·15 of a centimetre in thickness, at the central portion from 0·2 to 0·16 cm., and at the point of attachment to the uterus about 0·1 cm. The cavity of either tube measures in diameter at the fore extremity 1·5 cm., and at the ulterior end, 0·05 cm. Hence only the very finest probe can be made to enter either internal orifice.

The structure of the fallopian tubes, besides the fold of peritoneum which covers them anteriorly, posteriorly, and superiorly, consists of a comparatively wide-meshed connective tissue, in which are interspersed flat muscular fibres singly or in bundles, which are continuations of the muscular tissue of the uterus and broad ligaments. The muscular wall of the tubes consists of external long fibres, beneath which are transverse fibres. Both of these layers become more fully developed towards the uterus, and the external circular layer, which just before the entrance of the tubes into the uterine tissue measures from 0·095 to 1·3 millimetres in diameter, at the point of insertion measures 0·38 mm. At this point, also, we find the external circular and longitudinal fibres interwoven with each other.

Hence we prove the existence of the *sphincter tubæ*, which had been asserted to exist by Aran. The tubes also possess elastic fibres, which are most distinctly demonstrable before puberty.

Internal to the middle or muscular coat above described, we have a mucous membrane of from 0·07 to 0·06 cm. in thickness. It lines the entire course of the tubes, and here and there is marked by numerous creases and folds.

I have counted from 3 to 5 such large folds, and from 34 to 40 interfolds, making from 8 to 10 smaller folds between two larger ones. The nearer we approach the uterus the fewer and finer these folds in the mucous membrane become, as also more equable in size; in the interstitial portion of the tubes (that portion within the horns of the uterus) these folds are no longer recognizable to the naked eye.

The mucous membrane is quite firmly attached to the subjacent tissue, and in the narrow portion of the canal is of a pale yellow or yellowish gray color; near the free extremities of the tubes, however, it is of a reddish color, with grayish white spots and lines; but during menstruation, throughout its entire surface, it assumes a dark red color.

Imbedded in the substance of the mucous membrane are numerous glands, which are perpendicular to the free surface of the mucous membrane, and are most abundant and well developed in the widest portions of the canal of the tubes; at the latter point especially they are found be-

tween the longitudinal folds mentioned, and into which they empty at right angles. The distance between these glands does not quite amount to the breadth of a single one. These glands are generally single, but often forked, so that two blind sacs coalesce into a common one. Some of them subdivide at their base into four or five branches, forming a grape-like mass; and in a few instances they form several intestine-like coils having a common investing membrane, similar to the sweat follicles, and likewise a common emunctory.

The length of these glands is from 0·133 to 1·2375 of a millimetre; the breadth, at the orifice, from 0·0418 to 0.067 of a millimetre; the breadth, at the base, from 0.057 to 0.1425 of a millimetre. Their walls consist of a delicate, transparent membrane lined with non-ciliated cylindrical epithelium. These epithelial scales are long and ellipsoidal, with generally single elongated nuclei. The length of these epithelial scales is from 0.0076 to 0.0114 of a millimetre, and their breadth from 0·0028 to 0·0095 of a millimetre.

Sometimes the epithelium lining one gland is continuous into one or more adjoining ones, so that several glands in a fold of the tubal mucous membrane may have a common *Endoadenion—sit venia verbo!*

Method of Demonstration.—As these tubal glands are not demonstrable in the human subject by a simple preparation (a section made by a double-bladed knife), it is best, according to my experience, to macerate the tubes for several days in liq. ferri sesquichlorati, and then to dry them in the air for three or four days; their sections are then made with a razor, and soaked for 24 or 70 hours in glycerine. By this process I have obtained most beautiful specimens for demonstration.

As we approach the uterus, these tubal glands diminish in size and number. In the interstitial tissue of the tubes I have only been able to find short, single glands, similar to those of the vagina; they could with difficulty be distinguished from minute indentations of the mucous membrane.

The glands of the wider portions of the tubes are from 0·01 to 0·02 millimetres long and 0·001 broad, and are surrounded by from one to three layers of broad, smooth muscular fibres; these fibres undoubtedly aid in the expulsion of the contents of the epithelial cells and the free mucus. Very often, especially in catarrh of the tubes, glandular epithelium is found on the free surface of the mucous membrane. After the above facts had been corroborated by my professional associates, I searched in the appropriate text-books for a similar description. Only in Bowman's work upon mucous membrane, however, did I find an intimation that he had probably seen these glands in the human female. But their description, which I here insert, is so incomplete and somewhat incorrect, that I am inclined to believe he has striven to demonstrate what the microscope failed to demonstrate to him:—

"The lining membrane of the fallopian tubes, as also that of the uterus, is of a complex nature, especially during gestation, consisting of tubules arranged vertically to the free surface. It is observ ble that the ciliæ only cover the free surface, and that the epithelium lining the tubules is spheroidal, or intermediate between that and the prismatic variety. It is a form of the glandular variety, and bears no ciliæ."* To this Kölliker replies: "The tubal glands, spoken of by Bowman, I have never seen."†

While my researches have confirmed the existence of the glands discovered by Bowman, I must, however, remark that their description by the English investigator is not suitable to the tubal glands of the human subject. Nor can they properly bear comparison with those of the uterus, for they are much shorter, and more open and purse-shaped, resembling, therefore, compound glands, whether seen as many-pouched tubules, or as glands possessing a continuous cell-lining with adjoining ones. Moreover, the epithelium of the normal tubal glands is by no means "spherical," or "intermediate in form between that and the prismatic."

In regard to the presence of similar glands in the fallopian tubes of animals, Leydig does not mention whether the tubal mucus of the mammalia contains glands. In a male he saw short glandular follicles, "which were always grouped together in numbers, having a common lining"‡—hence quite analogous to the human tubal glands. The comparison of the human fallopian tubes with those of the lower animals is hardly proper, as in the latter these organs perform other functions. One peculiarity is, however, worthy of remark; in frogs, after the ova have passed through the tubes, the latter become of a yellowish-white ap-

* R. Todd. Cyclopœdia of Anatomy and Physiology, London, 1839–1847, vol. iii., p. 497, article on "Mucous Membranes."

† A. Kölliker. Mikroskopische Anat., Leipsic, 1854, ii. Bel., 2 Halfte.

‡ Fr. Leydig. Lehrbuch der Histologie des Menschen u. der Thiere, Frankf. a. M., 1857, S. 542.

pearance, which color is due to the fact that the albumen remaining in the cells of the tubal glands changes into fat corpuscles. I shall, further on, not only speak of the change of the entire contents of the glands of the human fallopian tubes into fat globules, but also of a similar fatty degeneration of the tissue of the tubes themselves—only, however, as will be shown under abnormal conditions.

Even among the invertebrates, compound or single cells have been found secreting the mucus of the tubes. The function of these accessory glands is to give a viscid covering to the ova in their passage through the tubes.

The epithelium of the free surface of the tubal mucous membrane is ciliated, and is also continuous with that of the cavity of the uterus. This ciliated epithelium lines the entire canal of the fallopion tubes, and extends even beyond the fimbriated extremities or to a portion of the serous covering of the tubes.

The length of this epithelium is from 0·0247 to 0·285 millimetres.
The breadth of this epithelium is from 0·0095 to 0·133 millimetres.

Under peculiar circumstances, the ciliated epithelium of the mucous membranes of the tubes, as well as that of other portions of the genital organs, are marked with fine parallel longitudinal lines, which in rare instances are crossed by equally fine transverse ones. I doubt whether these lines betoken a healthy condition of the cells (see U. Freidreich, *On the Structure of the Cylindrical and Ciliary Epithelium*; Virchow's Archiv., XV., Band. S. 535).

The epithelial lining of the human fallopian tubes being formed in layers, it is only those cells that are uppermost and occupy the free surface of the mucous membrane, that have cilia and a cylindrical form of the length above mentioned; the deeper layers are composed of short, almost round cells.

The cilia during life, and even sometimes after death, have a motion from without inwards: that is, from the abdominal surface of the tubes towards the uterine cavity. They can be seen still moving if the contents of the tube is very alkaline, even thirty-six hours after death.

The mucus of the tubes is generally composed of a thin grayish film, of single, and occasionally, grouped ciliated cells, and glandular epithelium, which are mixed with some mucous secretion, and an albuminoid mucus which I shall hereafter describe by the name hyaline. This is probably absent in a perfectly healthy condition; we cannot with as much certainty, however, assert that free fat is absent in the normal mucus, for ciliated epithelial cells undergoing fatty degeneration are almost invariably found, even in young subjects. Such cells, just beneath the cilia and immediately above the nucleus, have from two to four fat granules.

I will now represent in tabular form the growth of the right and left fallopian tubes:

	Age.						
	7th fœtal month.	1st year.	2d–5th year.	6th–10th year.	11th–20th year.	21st–24th year.	46th–81st year.
Length of right tube in centimetres.	1·7	3 to 4	5 to 7	7 to 8	6·5 to 11	11·3 to 16	12 to 9
Length of left tube in centimetres.	1·7	3·3 to 4·4	4·6 to 7	6·5 to 8	7·5 to 12·5	11·2 to 15	12·5 to 8·7

Up to the seventh month of fœtal life both tubes are of equal length; from that time, however, the growth of the left is a little less than that of the right. The average result of 10 examinations of girls who died before puberty was as follows: The right tube measured 5·98 cm. in length, the left 5·7. The average of 9 examinations of virgin women who died between the ages of 16 and 81, was 9·5 cm. for the right, and 8·5 cm. for the left tube. After the menopause the oviducts may grow from 2·5 to 4·5 cm.

During the active period of the sexual organs, the difference in length between the two tubes is less marked; the average of 22 examinations in married women under 45 years of age, gave for the right 11 cm., and for the left 10.9 cm. After menopause, however, the difference is striking, being in 12 women examined between 46 and 80 years, 9·75 cm. for the right, and 9·1 for the left.

In young children the ciliated epithelial cells are very small, and in every respect to those of the Wolffian bodies. I have been able to demonstrate their presence in a girl of 12 years of age.

In only a few women—17 out of 74 who furnished material upon which the above descriptions are based—the enlarged extremity of Müller's filament remained as a

type of the embryonic condition of the fallopian tubes, and in a few was transformed into a vesicle.—*American Journal of Obstetrics.*

THE RELATIONS OF THE MEDICAL PROFESSION TO MODERN EDUCATION.

From an Address delivered at the Commencement of the Medical Department of the University of Vermont, June 16th, 1869, by Edward S. Dunster, M.D., Professor of Obstetrics and Diseases of Women and Children, we make the following extracts. The address originally appeared in the *New York Medical Journal*, December, 1870.

* * * How stands the case now with the profession of medicine? It is the only one of the learned professions which does not plant itself on the dogmas of either authority, precedent, or tradition. Its doctrines are based upon the eternal and immutable laws of Nature, and are estimated by high scientific standards. Precedent and authority carry no weight here, except in so far as they accord with the principles which science has proven, and has established as reliable guides. There is none of that blind devotion to old ideas and methods which has so hindered progress in other callings, and which has rendered our educational systems so inadequate and unsatisfactory. The *old* is valued only as it squares with the *new*. The *past* is estimated solely by the standard of the *present*.

Not only does medicine thus discard authority, precedent, and tradition, but, first, its methods of study are purely scientific; and, second, its studies comprise the whole range of the physical sciences. The knowledge of these sciences, which has so often and ignorantly been condemned as unnecessary to the practising physician, has of late years far outstripped all other branches of human learning. It is the application of these sciences in biology which has given the physician that truer insight into the nature of the living body with which he has to deal, upon which depends the proud eminence of the profession to-day. "The essence of science," says Prof. Acland, "lies in observation, comparison, and classification; in precision of data and precision of argument." This is precisely what is required in the study of medicine. Indeed, it may safely be affirmed that there is scarcely anything true or valuable in medicine, beyond some of its therapeutical applications, which has not been wrought out and approved by scientific research. Observation, of course, is the basis of all knowledge; but, unless we do something more than observe—no matter how large may be the accumulation of facts—we can lay no claim to scientific method. There is not a single one of the physical sciences which is not contributory to medicine. On them the physician relies, and an understanding of, at least, the principles of them is absolutely essential in his study and his practice. Chemistry and mechanics, acoustics and optics, electricity and galvanism, the production and action of heat, the indestructibility of matter, the correlation and conservation of forces—these and all the other physical sciences are required to explain the many and varied healthy phenomena, or to correct the unhealthy phenomena, which are brought under the notice of the physician.

Covering thus, as it does, the whole range of physical sciences, and doing its work in strict accordance with scientific methods, medicine is entitled to rank as a science. It is constantly objected to this claim, that it is not an *exact* science. There is a very general, though vague, impression abroad that, while medicine is somewhat indefinitely scientific in its bearings, it is neither one thing nor another—a sort of a hybrid, entitled to no consideration whatever. Now, this objection can lie, to use a legal phrase, only against the *methods* of study and investigation which are employed, or against the *results* attained. It does not apply to the methods, for the methods are the same, as has been seen, that are employed in all other sciences, and as much nicety and precision are requisite and manifested here as elsewhere. As to the results, the objection at the present time is true to a certain extent. It arises from the great diversity of the study—including all the sciences—and the enormous number of interfering conditions met with in so complex a structure as man, the principal object of the physician's study. But, as we advance in our study and perfect our methods of investigation, we are able to appreciate more accurately the value and significance of these disturbing conditions, and make allowance for them, just as the astronomer allows for the aberration in the movements of planets or for the effects of the refraction of light. Thus we are, one by one, eliminating these sources of error, and gradually our results will approximate the accuracy of the fixed sciences. In its *essence*, therefore, both so far as concerns the methods of study and the results attained

and attainable, medicine is an exact science. The study is only in its infancy when we take into consideration the period during which it has explicitly and directly called science to its aid, or, in other words, has had a scientific basis. Therefore, many of its laws are imperfectly elaborated, and many of its old errors are yet uncorrected. But the incorporation with it of advancing science is every day adding certainty to its results, overcoming former prejudices, and dissipating error. And in this very fact are founded the high hopes we entertain of the continued progress of Medicine, for she does not hesitate to acknowledge her error when new truth has convinced her of a mistake, and, however devoted she may be to-day to any theory or system, if to-morrow advancing science proves that theory or system incorrect, she will not let it encumber her progress, but will sweep it from her path as remorselessly as the whirlwind crushes down the forest in its destroying track. Hence the unnumbered remains, dead and dying, of erroneous doctrines that may be found scattered along the wayside of the historic march of Medicine.

It is apparent, then, that the medical profession, although trained for a specific occupation, must have a scientific education, and we have above seen that the tendency of modern education is in the same direction. "Scientific education," says Mr. Mill, "apart from professional objects, is but a preparation for judging rightly of man, his interests and requirements." Now, if this assertion may be accepted as a postulate (and no one, I believe, can justly take exception to it), it forms a strong point in our argument, that the physician must take control of the coming education; for his culture, and his alone, enables him to judge rightly of man, his interest and requirements. This is his peculiar office, the highest and most ennobling of his duties, and, in the use of the term education, we have expressly extended its application to the broadest limits, and have excluded its subordinate and narrow features. * * *

More than two centuries ago, Descartes, one of Europe's keenest thinkers, said: "If it be possible to perfect mankind, the means of doing so will be found in the medical sciences." With a far-reaching prescience, he anticipated the influence which these sciences, then in a crude, almost chaotic condition, would inevitably exert. We, to-day, have only to look around us, to see this influence manifested in a thousand different ways and directions. And, although we are yet far from perfection, and may never reach it, it cannot be denied that the influence of these sciences is tending toward that end, toward man's improvement, mental, moral and physical—the most ennobling duty and privilege, perhaps, of the new education.

LIFE INSURANCE.

The concurrent appearance of American Life Offices in the British market and the passing of Mr. Cave's Bill for the better regulation of English offices naturally suggest a closer attention to the comparative condition of the American and the British law and practice. After the scandalous facts which came to everybody's knowledge concerning certain English offices of high pretensions, it was evident to every one that legislative interference for the protection of personal and family interests, largely involved in such companies, had become absolutely necessary and solemnly incumbent. Although the Act now in force for this end has most stringent regard to Associations which may be formed in future, yet it makes obligatory upon such as already exist, periodical statements of accounts placed before the authorities, the public at large, and the parties more interested especially, of such a nature as to constitute at all events some guarantee against the repetition of that wasteful, not to say fraudulent, trifling with the hard savings and the rightful expectations of the many, of which the revelations of the year of panic afforded abundant and sickening proof.

In considering the claims and merits of American offices, whether as confined to their own country or as proposing to transact business in ours, it must never be forgotten that they took the precedence of ours, and, in fact, set us the example of submitting their proceedings to the periodical inspection of public functionaries appointed for the purpose. In the several States where life insurance is carried on by offices established within their bounds, not only is it compulsory on those offices to report progress from time to time, but special commissioners are appointed to look after them, rigorously to examine the returns made, and officially to report and record the results of such examination. In the Empire State of New York, as in several other States, each Life Insurance Company is required by State law to make a deposit of equal to twenty thousand pounds sterling with the State in which it carries on business. The Companies are further called

upon to produce sworn statements annually of their assets and liabilities, income and expenditure, in full detail.

It is the duty of the State Commissioner, with these facts before him, to form a valuation of each office, upon a basis prescribed by law, with a view to ascertaining, for information and guidance, the amount of the liability or the reserve under policies outstanding. This important functionary is likewise empowered to investigate for himself the affairs of any particular Company which may be under a suspicion of being in a condition of insolvency. If, after such investigation, he see just occasion for prompt action and decisive steps, he is authorized to arrest by legal process the course of the delinquent office, and prevent its management from continuing to do business.

Provided always that this important and responsible duty is confided to men properly qualified and of inflexible uprightness, the arrangements concerning it leave little or nothing to be desired. Evasion of the requirements can only be effected by the offices of false swearing, which would prove a very dangerous resort. Let tricks of this sort be reasonably suspected, and probing investigation would promptly follow; while detection would lead to instant conviction, and conviction to rigorous punishment. These are some of the grounds which Englishmen taking out policies in an American office would have for persuading themselves that the risk of insurance is far from being in proportion to the breadth of the Atlantic, but that, on the contrary, the straits of Dover joined to a country and people entirely foreign might make a greater difference in point of security than that vast ocean joined to a country and people that, though politically foreign, are in law and language, morals and manners, our next of kin.

The State laws in several of the States would seem to give securities which may be admitted to be so far quite satisfactory and perhaps complete, and it only remains to form a general law for the whole commonwealth, based upon the same principles and adapted, on the widest scale, to fulfil the same useful and necessary ends. We take the liberty, therefore, of suggesting to the government at Washington, through their respected representative at this Court, the establishing a National Bureau founded upon the practice of individual States, and resulting in the formation of a distinct Administrative Department, with uniform laws and regulations for the whole country.—*Dublin Med. Press and Circular.*

Reports of Medical Societies.

SUFFOLK DISTRICT MEDICAL SOCIETY. REPORTED BY DR. F. W. DRAPER.

The Society met Dec. 31st, 1870, the Vice President, Dr. G. H. Lyman, in the chair.

The Section of Microscopy, to which had been referred the investigations of Dr. Carl Both in refutation of the views of Kölliker concerning the relation of the vessels and the pulmonary alveoli in healthy lung tissue, reported through Dr. Webber that, after careful consideration of the theories of Dr. Both and an examination of his microscopical specimens, they were not convinced of the accuracy of the claims advanced, for two reasons, viz.: that the sections of pulmonary tissue were too thick to show the alleged relation, and that they had been taken from the lower animals and not from the human subject.

Dr. J. C. Warren exhibited a specimen of melanotic sarcoma of the liver. Eighteen months before the patient's death, one of his eyes had been enucleated for the same disease. Six weeks only before death symptoms of hepatic disease manifested themselves, and during that period persistent icterus was present.

Microscopically, the liver presented no healthy portion, the parts which appeared normal to the eye having undergone partial fatty degeneration. The organ was enlarged and exhibited two well-defined sections—one showing marked melanosis, and the other, enclosed within the former by distinctly defined boundaries, yellow in color, in a necrosed condition and containing broken-down melanotic cells. Coagula in the portal circulation also contained the melanotic cells.

Dr. Bowditch suggested the possibility of a diagnosis by means of the microscopical examination of the blood before death.

Dr. John Homans exhibited the head of a femur of a child of 12 years. It had been excised for hip disease. The cartilage was entirely eroded and two-thirds of the bone itself was absorbed.

Dr. William Ingalls reported a case of aneurism of the abdominal aorta, which had been characterized by a marked absence of distinctive symptoms. The patient, a man of 35, had kept at his work until within a month of his death. The true condition of the aorta was not diagnosticated with certainty, because of the obscurity of the symptoms. There was a diffused inelasti-

city, with dulness on percussion, confined to one side of the abdomen. Pain was felt only in the region of the hip of the same side. Pulsation in the tumor was indistinct. There was no point of time when rupture of the aneurism could have been determined, and death appeared to result from asthenia.

Dr. Webber exhibited the post-mortem specimen of the foregoing case. The arteries were atheromatous. The aorta had expanded just at the cœliac axis into an aneurism of the size of a man's fist. There was commencing erosion of the bodies of two vertebræ, and the left kidney was pressed forward. The aneurism had ruptured inferiorly, and the abdomen contained a clot of large size.

Dr. Jackson said that, in his experience of such cases, in which there was rupture without lesion of the peritoneum, instantaneous death was the rule. Error in diagnosis was not uncommon, on account of the obscurity of the symptoms. He had noticed that a species of lumbago was a characteristic symptom.

Dr. Webber demonstrated the microscopical characters of miliary aneurisms of the arteries of the brain, by means of a specimen from a subject dead from locomotor ataxy, with cerebral symptoms toward the close of life. There were found in the white matter of both hemispheres, numerous small cavities filled with serum. The arteries at the base of the brain were atheromatous.

Dr. Webber showed two ossa innominata extensively eroded by cancer.

Dr. Treadwell read a paper criticizing the diagnosis of the case of progressive muscular sclerosis, reported in the Boston Medical and Surgical Journal for Nov. 17th, 1870. From his own knowledge of the history of the case, he deemed the disease to be chronic tetanus.

Dr. Waterman gave the history of a case of popliteal aneurism, simulating in its symptoms chronic synovitis, the knee being nearly immovable, greatly swollen, and painful. Sudden external hæmorrhage, with greatly increased swelling of the leg and thigh, confirmed the diagnosis of aneurism, and indicated immediate amputation of the thigh in its middle third. The patient died in a few hours from shock and the exhaustion consequent on the hæmorrhage.

The soft tissues of the thigh and leg were found extensively infiltrated and burrowed by the blood from the ruptured aneurism. The aneurismal tumor was hard, globular, and of the size of an orange. It seemed to have undergone spontaneous cure, and, finally, to have ruptured inferiorly near its base, leaving a scarcely recognizable valvular aperture.

Dr. Jackson exhibited a finely executed cast of the elbow of a sailor, thirty-five years old, who, when twelve years of age, had suffered dislocation backward of the radius and a compound fracture of the ulna. The case had no surgical care. After an interval, a few pieces of bone exfoliated, and the elbow recovered but with much deformity. The forearm was shortened two inches. The head of the radius projected posteriorly, forming a well-marked conical prominence. Notwithstanding the deformity, the man was able to perform duty as a seaman.

Dr. Garratt showed an English electric disk apparatus, and contrasted it with his own invention.

The Society adjourned.

Medical and Surgical Journal.

Boston: Thursday, February 2, 1871.

PRESCRIPTIONS IN ENGLISH AT THE GENERAL COURT.

We have received a report on the hearing at the State House, on Saturday, concerning the writing of physicians' prescriptions in English. It was drawn up at the suggestion of one of the profession by Mr. H. W. Lincoln and other well-known apothecaries, and is interesting and valuable throughout; their views, however, are so nearly coincident with those we ourselves expressed in our Editorial of last week that we think it unnecessary to repeat them, and only give portions on subjects not touched by us.

"This proposition seemed so absurd upon the face of it that probably few who might have been interested took any notice of it. But lest their apathy might be taken for want of interest, or from the supposed weakness of their cause, a few members belonging to each of the classes referred to in the order gave, at the request of the committee, their reasons why the object sought for could not be accomplished in the way proposed."

"This seemed to be the opinion of the medical fraternity generally. As regards

the matter affecting the apothecaries, many examples were given by Messrs. Hovey, Markoe and Lincoln to prove that a change would cause more confusion and more dangerous consequences to the public than by the course at present adopted. It was stated that while many medicines had several names in English, there was only one name in Latin. Also, that Latin names were almost always given to express some medicinal property of the plant, its botanical character or its apparent properties, which would serve to distinguish one plant from another. Also in chemical substances not only their properties, but their definite composition, were expressed by the Latin name. It was also stated that as a convention of apothecaries and physicians met once in ten years to amend the U. S. Pharmacopœia, which was the authority for the names used, it would be very difficult for Massachusetts to legislate for Washington or New York. Now a prescription properly written can be put up anywhere, from St. Petersburgh to the Sandwich Islands, which could not be done should the proposed order be adopted. Other arguments were used of a similar character, which the committee listened to with much attention. The remedy offered by the apothecaries was that a higher grade of qualifications should be required from pharmaceutists, and stated that a petition had been signed by nearly every apothecary in Boston, asking that a law might be passed to accomplish this object. The committee intimated that they should not take any action on the order until the petition of the apothecaries had been presented. As it may be thought that the petition had been got up on account of the order, it is fair to say that it has been in progress many months, and has been offered after mature thought and consultation among apothecaries. A law was passed last winter by the Legislature of Maryland, for the city of Baltimore, which embodies the general principles of what is needed, and will be probably used as the basis of an act to be asked for from the Legislature of Massachusetts. This is a move in the right direction, and if it should receive the sanction also of the medical profession will be the harbinger of better days to both and also to the public."

VENTILATION OF THE BOSTON CITY HOSPITAL.

Messrs. Editors,—The Boston City Hospital having been constructed and being supported out of the public taxation, all citizens have a right to inquire into its conduct. The problem of the ventilation of public buildings being one of great interest to ourselves among many lookers-on, we naturally await the results of experience in this direction, with the expectation that we shall be duly informed of them. Among the methods of introducing fresh air into hospital wards, that of forcing it in by engines constructed for the purpose has been employed. An elaborate apparatus of this kind we saw at the hospital for consumptives at Brompton (London) many years ago. It had proved a failure, and was disused. When the Boston City Hospital was opened we, in common with a host of other medical men, inspected the elaborate mechanism for carrying fresh air into that institution. Some six or seven years having elapsed since that time, and an elegant and portly volume of "Medical and Surgical Reports" of the Boston City Hospital (covering a period of five years) being before us, we open it eager to learn what measure of success has been awarded to the undertaking to furnish the sick with pure air. The valuable and elaborate professional reports are preceded by a "History and Description of the City Hospital," signed by the members of the Board of Trustees. This last mentioned paper contains an account of the ventilating apparatus shown to us in 1864. We look for a statement of the results of its practical working and find —nothing!

What does this mean? Are the Trustees unaware of the importance of the subject, or of the wide-spread interest in it?

That the medical and surgical attendants must have concerned themselves about it, we well know. We make inquiries, and find to our surprise that these gentlemen on the first of July, 1868, drew up a formal report to the Board of Trustees on the "subjects of ventilation and cleanliness," pointing out deficiencies, and that the Trustees received this report and did nothing. That report was signed by all the physicians and surgeons except one who was out of town. A vote was also subsequently passed by the Medical Staff, requesting the Trustees to *measure* the ventilation by competent experts like Pickering and Henck of the Technological Institute. This proposal the Trustees verbally acquiesced in, but failed to carry out. Six months later the request was repeated by formal vote—no result.

We have obtained a copy of the above

mentioned report of the physicians and surgeons to the trustees, and present a few extracts from it.

After setting forth that "experience both in Europe and America has conclusively proved that absolute *cleanliness* in its broadest sense (in which term is included clean air as its most important element) is the one thing needed in hospital management; never yet attained in any hospital in the world, but perhaps not unattainable;" they go on to say that the "Boston City Hospital, of which we are all proud, and which we would make if possible the best in the world, is perhaps ventilated as well as most civil hospitals here or anywhere, and yet is so obviously defective in this respect that we believe it to be the direct and positive means of both propagating and originating disease. The system relied upon by its builders for introducing pure air * * * has been tried at the Lariboisière Hospital in France, and in several great hospitals in England, and is pronounced in the report of the medical officer of the Privy Council for 1864 a failure. * * * How it would work in our case is unknown, since it is not used continuously, and is hardly ever used at all."

"The House officers of the year ending last April are of opinion that during their term of service the fan was running not more than one-tenth of the time. The present House officers have seen it running on one occasion only during April, May, and June." * * *

"Yet we think that * * * [the system] should be fully and fairly tried. In our long wards the ventilation is in summer by windows and doors; and these can be made to change the air with great rapidity, if it is the special duty of some one to see that they are kept open. In winter this simple and efficient form of ventilation, which can never be entirely dispensed with, is aided by fresh warm air rising by being heated in coils of pipe beneath, and coming into the wards precisely as it does from the hot air registers in our houses. It escapes as it best can through windows and doors, and cracks and crannies of every sort; a small portion finding its way through eight small openings into flues which are not heated and which are capped by (so-called) ventilators. Some of these flues indicate a current, others none at all. There are also fireplaces through which, *without fires*, the currents are doubtful. The air which thus escapes is very trifling, and from the upper openings is probably the best in the room, as the heated air rising from the registers flows to the ceiling, near which these openings are placed.

"The testimony of all medical officers who have had occasion to visit these wards during the night in cold weather, is that they are oppressively foul.

"The third pavilion is much worse, however, than the long wards, bad as they are. Here, unless the fan is running, the heat is derived exclusively from coils of pipe standing in the room, and the only fresh air which enters them, except by a small opening under the coils, is through the door and window. When these are closed, or even when the door is open and the hall-door closed, the atmosphere is dangerously impure." * * * *

"They would also recommend that the plan of ventilation upon which the hospital was constructed be fully tried. In order to do this, *the fan should be kept running day and night at all seasons when artificial heat is required in the wards.*

"These observations are made," it is said in conclusion, "not in the spirit of fault-finding or complaint, but that all who are concerned in the management of the hospital may understand how great we believe to be the deficiencies in what is most essential to its perfect success."

The preceding extracts speak for themselves. But lest readers at a distance should be led to misapprehend the status of the professional gentlemen connected with the hospital, we will add that the latter are appointed, like the medical and surgical attendants of other similar institutions, on account of prominent merit; that they render their services gratuitously; and that some at least among them are not anywhere surpassed as to eminence in their respective departments.

CIVIS ET MEDICUS.

EPISTAXIS AGAIN. *Messrs. Editors,*—Several articles have, of late, appeared in your JOURNAL on a method of stopping hæmorrhage from the nose. The following case presents another method, which may be in common use, but which I have not seen anywhere mentioned.

A month ago I was called to an Irishwoman, who had been bleeding from the nose, most of the night, as was said. I found her with discolored eyes and flattened nose, still bleeding, though not profusely. In a vessel beside her bed was, apparently, more than a pint of arterial blood, besides quite a quantity spattered over the bed, the furniture and the floor. I threw her head

back, somewhat, and poured, from a spoon, a little dilute Monsel's styptic into each nostril. The hæmorrhage at once ceased and did not recur. **

The Pancreatic Cocoa, mentioned in our advertising columns as being for sale by Messrs. Metcalf & Co., was imported by a private gentleman for personal use. A portion of the lot is placed at the disposal of Boston invalids, in order to give physicians an opportunity to test its advantages in their own practice. It is said to be the only sample of the article in the country.

Our friend Dr. C. B. Brigham, of Boston, has deservedly met with much success in his clinic at Nancy, in France, as well as in securing the good-will of the military authorities under whom he is now acting. We have already published a series of interesting cases in his service (Journal, January 26, 1871). We now copy an item, contained in a secular paper, relating to the same gentleman.

"The Americans have had better luck. At Nancy I visited the ambulance that the young Dr. Brigham had established there, and where he tended an equal number of Germans and French. The new authorities wished to have the last evacuated, but the doctor, with an energy altogether American, has set his face against it, and succeeded in keeping all of his invalids. I have seen him at his work, and I have heard many benedictions follow him from his wounded ones, whom he treats as if they were his children. He has shown me several anatomical pieces that he has had great difficulty in preserving from the scientific zeal of Messieurs the German doctors."

A Repository of American Medical Works.—The medical profession, and scholars generally, are aware of the ephemeral form in which most of the early American contributions to the literature of medicine were given to the world, and, indeed, in which many of the more recent are being published. This condition of much of our professional literature is deeply regretted by all, and particularly by those whose taste and research lead them to refer to this class of works, when the fact is made apparent that whole editions of tracts and books have entirely perished through neglect. With a view to provide against such a contingency, and preserve, for the benefit of the profession, in some accessible and central locality, copies of all home medical publications, the American Medical Association, at its annual meeting in May last, resolved to establish at Washington, D. C., a library or repository of American medical works, to which it is believed all the current medical literature of our country will be cheerfully, promptly and constantly contributed.

It is designed that this repository shall contain copies of every contribution by American physicians to the literature and science of medicine, from the earliest settlement of our country, no matter how or where published, including all the books, pamphlets, journals, and even unpublished manuscripts, that can be collected.

The Secretary, Prof. Henry, of the Smithsonian Institute, has generously granted the use of a room in that fire-proof building for the keeping and preservation of the Library of the American Medical Association, under the charge of its own librarian. The accommodation thus offered the Association for accumulating and preserving its library free of cost is generous and most encouraging. Gentlemen having scarce and valuable American medical publications will not hesitate to deposit them in such a safe, central, and national repository, where they will be preserved from destruction and their usefulness secured to the profession.

An appeal for contributions to this library is now made, personally and distinctly, to each and every American physician, medical publisher, and editor, to deposit copies of their works in this repository, where they will be carefully kept for reference and catalogued with the name of the donor.

Contributions of the class of works mentioned, are respectfully and earnestly solicited from every source. Packages may be sent by mail or by Adams's Express, to either of us, which will be promptly acknowledged on reception, and a record of titles kept.

F. A. Ashford, M.D.,
No. 1330 *New York Avenue, Librarian.*
Joseph M. Toner, M.D.,
No. 615 *Louisiana Av., Library Com.*
Washington, D. C.

Another Monstrosity. By Benj. Thompson, M.D., New Garden, Pa.—I was called, on the morning of the 5th of May, 1869, to attend a Mrs. ——, in her fourth labor, æt. 27, and weighing about 116 pounds, when

in health. On my arrival at her residence, at about 8 o'clock in the morning, I was informed that she had ceased to menstruate the last week in August last, and therefore considered herself in the eighth month of pregnancy, and that about four hours previous to my arrival she had experienced three or four very severe pains, with the discharge of the waters, attended with quite free hæmorrhage. On examination per vaginam, I found that she had lost considerable blood, but that the hæmorrhage and pains had nearly ceased. The os uteri was but little dilated and high up, with discoverable indications of labor.

After remaining about three hours and observing no considerable change in the symptoms or immediate necessity for my presence, I left to visit other patients, with the understanding I was to be sent for immediately on the recurrence of pain or hæmorrhage. Not hearing from her, however, in the meantime, I called to see her on the following morning, arriving about 8 o'clock, when I was informed that very strong and frequent labor pains had set in about twenty minutes before, attended with a return of hæmorrhage. On examination, I found the os dilated so as to admit two arms down to the shoulders, a *right* and a *left*, with prolapsus of the cord *without pulsation*. I immediately informed the patient that she had a *cross-birth* and it would be impossible for the child to be born by her own *unaided efforts, while in that position*; that it would be necessary for me to rectify the position by *turning*. The pains were *very strong*, with but slight intermission, attended with hæmorrhage, and the waters drained off for twenty-four hours when I proceeded in the attempt to turn.

Introducing my hand with some difficulty into the womb, I carried it along the body of the child until reaching the legs resting on the left ramus of the pubis—a *right* and a *left leg*; seizing the feet and with considerable difficulty in the short intervals from pain, I succeeded in turning the child, but in bringing the body down into the pelvis, some obstruction to further progress was apparent, which on examination proved to be the presence of another child. In this emergency I determined to hold on to the first child and deliver it; when, by strong traction, aided by the expulsive efforts of the mother, the hips of the first child were delivered. Here, again, there appeared to be an arrest of further progress, when, upon further examination, I became satisfied that the second child was following or accompanying the first, and that they *were united*, the heads about engaging in the superior strait.

With strong efforts upon the part of the mother, aided by considerable traction, they were finally delivered, the *head of the one pressing against the neck of the other*.

They were well-developed female children of eight months, and closely united from the umbilicus to the superior extremities of the sterni, with but one umbilicus in common, and but one cord, though containing six vessels, the cord dividing one and a half inch from the placenta, a single cord then passing into each side of the afterbirth.

There was but one set of membranes, which corroborated what the patient had previously informed me in regard to the discharge of the waters, and is confirmatory of a physiological theory in regard to the development of the sexes. The case, to my mind, presents some points of interest. Firstly, it was a case of placenta prævia. Secondly, it was a cross-birth, with shoulder presentation, requiring the operation of turning twenty-four hours after the discharge of the waters. Thirdly, it was a *monstrosity—Siamese twins*. Fourthly, it demonstrates the fact that twins can be delivered with the head of the one pressing against the neck of the other. The children were not living, and I suppose were not for some hours previous to delivery. The mother made a speedy and favorable recovery. I preserved the children and deposited them in the Wistar Museum of the University of Pennsylvania.—*Medical and Surgical Reporter*.

Female Medical Students in Edinburgh.—The letter of our Edinburgh correspondent gives details of a disgraceful riot at the College of Surgeons there. It appears the "lady students" have been dissecting the genital organs in the same room with "gentlemen" students! Hence a scene of blackguardism unparalleled in the history of Medicine. This business of female medical teaching has become a most serious public scandal. Why does the College of Surgeons of Edinburgh allow of the provocatives to the riotous proceedings referred to?

We do not for an instant wish to palliate any violence or riotous proceedings of which any of the Edinburgh students may have been guilty; but if they are to be blamed, what is to be said of the systematic infringement of the laws of decency by the dissection of female or male subjects by women, in the presence of men, in Dr. Handyside's dissecting-room, which has led

to these outrages? If women desire to practise medicine, let them do it, if they can. But if they are to do it, public opinion must not be outraged. It must be clearly understood that they must have teachers, dissecting-rooms, hospitals, and examinations of their own. From her Majesty on the throne—as Dr. Christison has lately assured us—down to the poorest beggar woman, we are certain that we have the support of all women who are worthy of the name when we protest against the excessive indecency of young women and men studying anatomy and physiology in the same anatomical school.—*London Med. Times and Gazette.*

Our profession is evidently looked on as a refuge for the destitute. Doctoring is so easy, so pleasant, and so remunerative in the eyes of the public, that it seems to offer special baits to the genteelly needy. First, we have had a small irruption of the fair sex, although whether their colonization in our territory will be a permanent one remains to be proved. But a more formidable invasion threatens us, in the shape of the poorer clergy, who, it is seriously proposed, should unite to their sacred office the secular ones of feeling pulses, attending accouchements, and extracting fees from their parishioners. Of course, we are aware that the professions of theology and medicine were united in the dark ages, although we do not recollect any instance of priest or friar who charged for his medical skill. With a flippancy bordering on profanity, one of the writers in the *Times* on this subject adduces the fact that Our Lord was the Good Physician, to support the proposal that the curate of the parish should eke out his income by attending to bodily ailments as well as spiritual. But Our Lord did not take fees for what he did, neither did his apostles. We would suggest that the practice of medicine, surgery, and midwifery would not be quite easy with the due administration of his word and sacraments. Fancy a parson in the middle of an ecclesiastical function being called to a midwifery case! The cool impudence with which Prester, who writes in the *Times* to float this precious scheme, talks of "the capabilities of union doctors" as infinitely inferior to those of some self-taught parson of his acquaintance, who has been filling his pocket by acting as accoucheur in a freer but darker land (we presume on a darker population), and so increasing his spiritual influence, is truly amusing. If our freedom is not equal to our light, the latter is sufficient in England to prevent the English people mistaking the greatest of all quacks—a self-taught medical parson—for a properly educated medical man. If the clergy want to practise medicine, they must go through a proper training, curriculum, and examinations, and become duly qualified and registered medical practitioners. The small number who might have the means, time, and patience to do this, in addition to the necessary training for their sacred office, would soon find that the two pursuits, as pecuniary undertakings, were unproductive; that the cure of bodies for gain was incompatible with the cure of souls.—*Ibid.*

A Case of Idiopathic Glossitis of the left half of the Tongue. Reported by J. W. Hawkins, M.D., of Canton, Mo.—The extreme rarity of idiopathic glossitis, involving but one side of the tongue, has induced me to furnish a report of the following case for publication.

P. G., aged 22, a farmer of robust constitution and healthy appearance, applied to me, March 15th, for medical aid on account of difficult deglutition and soreness of throat. On examination, a little turgidity of the vessels, with slight redness and little or no swelling of the tonsils, was all that was apparent. Prescribed a cathartic of podophyllin and a gargle of chlorate of potassa.

March 17th.—Left half of the tongue considerably swelled, so as to render his speech exceedingly difficult. Tonsils very little swollen. Continued the same treatment with the addition of a cantharidal vesicant to the left side of the throat.

March 20th.—Left half of the tongue enormously swollen from tip to root, with evident signs of pus having formed. Objected to having it cut into, and fortunately for him, a few hours after, while making a strong effort to swallow his saliva, the parts in front of the left tonsil ruptured and the pus flowed freely out, giving instant and permanent relief. Recovery followed without further difficulty.—*Medical Archives.*

Experiments on Vaccine Virus.—In the *Gazette Hebdomadaire* are described some experiments on vaccine lymph, which was collected in capillary tubes and the tubes sealed hermetically and exposed to a temperature of 170° Fahr. for an hour and a half. On trial the virus proved to be active and produced perfect pustules.—*Pacific Medical Journal.*

Medical Miscellany.

PHYSICIANS' PRESCRIPTIONS.—The committee of the Massachusetts Legislature, to whom was referred the proposal for a bill providing that physicians' prescriptions and apothecaries' labels should be written in the English language, reported on Saturday that it was inexpedient to legislate in the matter.

TREATMENT OF SYPHILITIC SWELLINGS.—Prof. Sigmund recommends punctures by an exploring trocar, or by a Pravaz's syringe. The puncture must be performed once or twice a day, followed by an injection of linseed oil with carbolic acid, or by a compress bandage. After the puncture the pus can also be evacuated by slight pressure. In regard to the general treatment, the author mentions the hypodermic injection of chloride of silver. The solution contains four grains to an ounce of water. At first, 12 drops are injected twice a day. The groin and the infraclavicular region should not be chosen as sites for injection. The cure is rapid, but not sure. In suppurating buboes, S. applies a solution of carbolic acid one part, with linseed oil four parts and lime 32 parts, after Lister. It is useless in periadenitis. It requires the same length of time as any other method, but in cases of large cavities it manifests its good effects by diminishing the secretion and bringing up healthy granulations.—*Bericht d Wiener Krankenhauser.*

THE COUNTESS BISMARCK AND THE DOCTOR'S BILL.—Some time before the war broke out, a son of Count Bismarck, a student at Bonn, received from a rapier thrust an injury to the head, which it was thought must prove fatal. His parents were telegraphed for, and, after passing some weeks at the bedside of her son, the Countess of Bismarck, on taking her leave, did not forget his doctor, but sent him the magnificent sum of 6 Frederics, equivalent to 127 francs 25 centimes. The doctor felt somewhat astounded, seeing that he had paid his patient 160 visits, some of these taking up several hours. He thought it best to present his own account for payment, charging 160 thalers, at the rate of a thaler, 3 francs 75 centimes, per visit, or a total of 600 francs—an amount which must surely be considered moderate enough!—*Lyon Médical.*

DEATH FROM CHLOROFORM.—Dr. Hughes Bennett stated at the last meeting of the British Association that "he knew of one very sad case that had happened in Edinburgh. A young and beautiful lady, daughter of a barrister, in perfect health, went to a dentist's house one morning and had a tooth extracted. Five minutes afterwards she was dead. That was only one of many similar cases that had occurred, but had never been published."—*Brit. Med. Journal.*

MR. JOHN CHURCHILL, whose name since the year 1816 has been so intimately connected with medical literature, has retired from active business, leaving the publication of professional books in the hands of his sons, John and Augustus. After fifty-five years of active and intimate association with the profession, he seeks, in a more quiet life, the rest which his honorable labors have fairly earned for him.

TO CORRESPONDENTS.—Communications accepted:—Some Peculiar Cases of Ovariotomy, with the description of a New Method of Treating the Pedicle.—A New and Practical Method of Disinfection.

BOOKS AND PAMPHLETS RECEIVED.—General Surgical Pathology and Therapeutics; a Text-book for Students and Physicians. By Theodor Billroth, Professor of Surgery in Vienna. Translated from the German by Charles E. Hackley, A.M., M.D., Surgeon to the New York Eye and Ear Infirmary, &c. New York: D. Appleton & Co. 1871. Pp. 978.—Body and Mind; An Inquiry into their Connection and Mutual Influence, especially in reference to Mental Disorders. Being the Gulstonian Lectures for 1870, delivered before the Royal College of Physicians, by Henry Maudsley, M.D. Lond., &c. New York: D. Appleton & Co. 1871. Pp. 155.—Electrization in the Treatment of the Diseases of the Organs of Digestion. By A. D. Rockwell, M.D., New York. Pp. 20.

DIED,—In Bath, Me., T. G. Stockbridge, M.D.—In New York, Jan. 29th, of paralysis, Dr. Geo. T. Elliott, Professor of Obstetrics in Bellevue College.

Deaths in eighteen Cities and Towns of Massachusetts for the week ending Jan. 28, 1871.

Cities and towns.	Total.	Prevalent Diseases. Consumption.	Pneumonia	Scarlet Fever.	Croup & Diphtheria.
Boston	104	18	14	4	3
Charlestown	11	3	1	0	1
Worcester	19	3	3	2	1
Lowell	17	2	1	0	1
Milford	12	1	1	0	0
Chelsea	4	0	1	0	0
Cambridge	16	4	3	1	1
Salem	5	1	0	0	0
Lawrence	10	2	2	0	0
Springfield	4	0	0	2	0
Lynn	11	1	2	0	0
Gloucester	3	1	1	0	1
Fitchburg	4	0	0	1	0
Newburyport	8	3	0	0	3
Somerville	7	1	1	1	0
Fall River	10	2	0	0	0
Haverhill	5	0	1	0	0
Holyoke	5	0	1	0	1
	255	42	32	11	12

Holyoke reports one death from smallpox. A fire in Milford caused the death of five persons. Three were burned in a building, and two died from poison. A bottle of strychnine was taken from a burning drug store, and given by a father to his children as a plaything.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Jan. 28th, 104. Males, 54; females, 50. Accident, 3—apoplexy, 2—inflammation of the bowels, 1—bronchitis, 3—inflammation of the brain, 1—congestion of the brain, 1—disease of the brain, 5—cancer, 3—cyanosis, 1—consumption, 17—convulsions, 5—croup, 2—debility, 4—diarrhœa, 1—dropsy, 1—dropsy of brain, 4—diphtheria, 1—epilepsy, 1—scarlet fever, 4—typhoid fever, 1—disease of heart, 3—hæmorrhage, 2—hæmoptysis, 1—disease of the kidneys, 2—congestion of the lungs, 3—inflammation of the lungs, 11—marasmus, 1—old age, 1—paralysis, 6—peritonitis, 1—phlebitis, 1—suicide, 1—teething, 2—tumor of throat, 1—unknown, 7.

Under 5 years of age, 38—between 5 and 20 years, 7—between 20 and 40 years, 26—between 40 and 60 years, 18—above 60 years, 15. Born in the United States, 66—Ireland, 31—other places, 7.